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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,893	04/16/2004	Kent S. Tarbutton	56847US007	2224
32692	7590	11/21/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			TO, TOAN C	
PO BOX 33427			ART UNIT	
ST. PAUL, MN 55133-3427			PAPER NUMBER	

3616

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/826,893

Applicant(s)

TARBUTTON ET AL.

Examiner

Toan C. To

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-36 is/are pending in the application.
- 4a) Of the above claim(s) 32-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-31, 35 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7-01-2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species II, represented by figure 3-4, claims 17-31, 35-36 in the reply filed on September 2, 2005 is acknowledged. The traversal is on the ground(s) that the examiner fails to provide reasons why the proposed restriction requirement is proper. This is not found persuasive because as set forth in Election requirement, "Should applicant traverse the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is a case"
2. The requirement is still deemed proper and is therefore made FINAL.
3. Claims 32-34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on September 2, 2005.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Recitation "an angle of greater than or less than 180 degrees" in claim 26 is unclear, since it is not known what degrees of angle being claimed.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 17, 21-28, 30-31, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Joslin (U.S. 3,210,102).

As to claims 17, 25, and 30-31, Joslin discloses a "hydroformable" article comprising: a female tube portion (12) and a male tube portion (10), a portion of said female tube portion (12) being disposed about a portion of said male tube portion (10); a groove (16) disposed in at least one of said male tube portion (10) and said female tube portion (12) to form an annular region between said male tube portion and said female tube portion; and a cured adhesive (28) disposed in said annular region between said male tube portion and said female tube portion so as to form a bonded joint, wherein, said bonded joint is able to withstand a hydroforming process substantially without leakage and maintain sufficient strength, fatigue resistance and durability to be utilized as a structural element after said article is formed into its final shape, wherein, said article forms part of a structural frame member of a vehicle frame; wherein, the female tube portion (12) and male tube portion have been permanently deformed by

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hydroforming; wherein said cured adhesive (28), as well as said female tube portion (12) and said male tube portion (10), has been permanently deformed by hydroforming (the pipe coupling of Joslin is capable of deforming by a hydroformed process).

As to claims 21-24, Joslin discloses a hydroformable article, wherein the article is capable of withstanding hydroforming pressure greater than about 5000psi, the adhesive has a minimum shear yield strength of at least 5000psi, and the male and female tube portion are each made of a metal that has a minimum yield strength of at least about 30,000psi (see column 4, lines 1-12);

As to claims 25-28, Joslin discloses an article as claimed, wherein said female tube (12) portion includes a remainder portion outside of said joint, said male tube portion (10) includes a remainder portion outside of said joint (see figure 2a), and the remainder portion of said male tube portion being disposed at an angle of less than 180 degrees to the remainder portion of said female tube portion; and the remainder portion of the female tube (12) and the remainder portion of the male tube (10) form an L-shape (see figure 2a), wherein the groove is formed in the male tube portion (10), and the female tube portion does not contain a groove;

As to claim 35, Joslin discloses an article, wherein said groove (16) has a groove depth, said male tube portion (10) and said female tube portion (12) have a fit-up clearance, and the ratio of the groove (16) depth to fit-up clearance is sufficient to prevent bypass leakage of said adhesive beyond said joint, when said adhesive (14) in an uncured state is disposed in said annular region.

With respect to the recitation in the preamble that the article is "hydroformed", such does not limit the structure of the claimed invention.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 17-31, 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaehler (U.S. 5,794,398) in view of Joslin.

Kaehler discloses a composite frame structure for vehicle comprising a plurality of article (joint between elements 18 and 30) in form of a birdcage structure (see figure 1), wherein the article form part of a structural frame member for a vehicle frame.

Kaehler fails to disclose detail structures of the article as claimed.

Joslin teaches the article as discussed above. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the composite vehicle frame of Kaehler et al by using the teaching as taught by Joslin in order to reduce cost of labor and material while effectively increasing in retaining a tight seal of the joints for the vehicle frame.

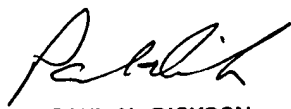
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan C. To whose telephone number is (571) 272-6677. The examiner can normally be reached on Mon-Fri (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTo
November 13, 2005

 11/14/05
PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600